EPA

HAZARDOUS SITE EVALUATION DIVISION

# Field Investigation Team Zone II

ecology and environment, inc.

International Specialists in the Environment

SCREENING SITE INSPECTION REPORT
FOR
WOOD DALE-THORNDALE RD DUMP
WOOD DALE, ILLINOIS
U.S. EPA ID: ILD980677967
SS ID: NONE
TDD: F05-8710-022
PAN: FIL0080SB

SEPTEMBER 17, 1991

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International Specialists in the Environment

SIGNATURE PAGE
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# 1. INTRODUCTION

Ecology and Environment, Inc., Field Investigation Team (FIT) was tasked by the United States Environmental Protection Agency (U.S. EPA) to conduct a screening site inspection (SSI) of the Wood Dale-Thorndale Rd Dump (WT) site under contract number 68-01-7347.

The site was discovered after a November 20, 1980, citizen complaint to the Illinois Environmental Protection Agency (IEPA). The complainant alleged midnight dumping of liquid waste at the site (IEPA 1980a).

The site was evaluated in the form of a preliminary assessment (PA) that was submitted to U.S. EPA. The PA was prepared by Kenneth W. Corkill of IEPA and is dated May 13, 1987 (U.S. EPA 1987).

FIT prepared an SSI work plan for the WT site under technical directive document (TDD) F05-8710-022, issued on October 9, 1987. The SSI work plan was approved by U.S. EPA on November 20, 1989. The SSI of the WT site was conducted on November 12 and 13, 1990, under amended TDD F05-8710-022, issued on December 14, 1989.

The FIT SSI included an interview with a site representative, a reconnaissance inspection of the site, and the collection of seven soil/sediment samples.

The purposes of an SSI have been stated by U.S. EPA in a directive outlining Pre-Remedial Program strategies. The directive states:

> All sites will receive a screening SI to 1) collect additional data beyond the PA to enable a more refined preliminary HRS [Hazard Ranking System] score, 2) establish priorities among sites most likely to qualify for the NPL [National Priorities List], and 3) identify the most critical data requirements for the listing SI step.

> A screening SI will not have rigorous data quality objectives (DQOs). Based on the refined preliminary HRS score and other technical judgement factors, the site will then either be designated as NFRAP [no further remedial action planned], or carried forward as an NPL listing candidate. A listing SI will not automatically be done on these sites, however. First, they will go through a management evaluation to determine whether they can be addressed by another authority such as RCRA [Resource Conservation and Recovery Act].... Sites that are designated NFRAP or deferred to other statutes are not candidates for a listing SI.
>
> The listing SI will address all the data requirements of the revised HRS using field screening and NPL level DQOs. It may also provide needed data in a format to support remedial investigation work plan development. Only sites that appear to score high enough for listing and that have not been deferred to another authority will receive a listing SI. (U.S. EPA 1988)

U.S. EPA Region V has also instructed FIT to identify sites during the SSI that may require removal action to remediate an immediate human health or environmental threat.

# 2. SITE BACKGROUND

## 2.1 INTRODUCTION

This section presents information obtained from SSI work plan preparation, the site representative interview, and the reconnaissance inspection of the site.

## 2.2 SITE DESCRIPTION

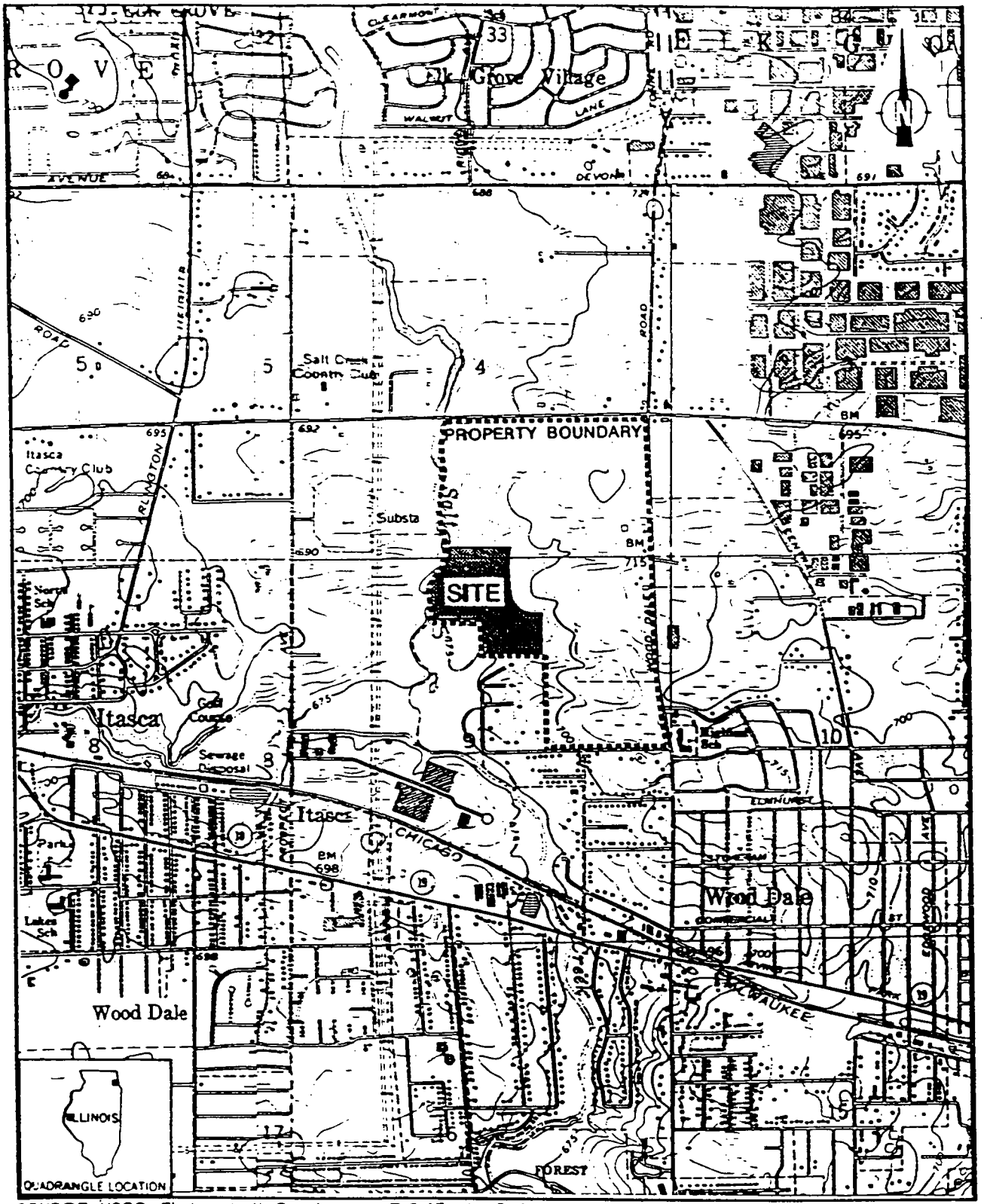
The WT site consists of approximately 30 acres of undeveloped land in the southwest corner of a 273-acre parcel of land. The site is currently being used as a recreation area by residents and workers in the area of the site. Portions of the 273-acre parcel had been used for landfarming municipal sludge. The WT site is located on Mittel Drive, Wood Dale, DuPage County, Illinois (NW1/4NE1/4 sec. 9, T.40N.. R.11E.) (see Figure 2-1 for site location).

Land use in the area of the site is primarily commercial and industrial, with some residential properties. Salt Creek is located west of the site and intersects the site's northwest corner. The site topography slopes gently to the west, toward Salt Creek.

A 4-mile radius map of the WT site is provided in Appendix A.

## 2.3 SITE HISTORY

Prior to 1980, the 273-acre property was used for agricultural purposes. During this period, American National Bank, Chicago, Illinois, acting as the owner's trustee, managed the site. It is not known who owned or operated the site during this time. In approximately 1980, Illinois Industrial Properties (IIP), a real estate development




SOURCE: USGS, Elmhurst, IL Quadrangle, 7.5 Minute Series, 1963, photorevised 1972 and 1980; Lombard, IL Quadrangle, 7.5 Minute Series, 1962, photorevised 1972 and 1980.

SCALE

0 ½ 1 MILE

FIGURE 2-1 SITE LOCATION

and construction firm, purchased the 273-acre property from American National Bank for the purpose of land development (Stoetzel 1990).

In approximately 1980, the city of Wood Dale discovered a municipal sludge build-up in its polishing lagoon that was degrading the effluent that emptied into Salt Creek (E & E 1981). The city of Wood Dale hired a consultant to analyze the municipal sludge in order to determine appropriate sludge disposal methods. Perry Laboratories, Inc., Villa Park, Illinois, analyzed the sludge on May 5, 1980. Sampling analysis results indicated that the sludge contained arsenic, barium, chromium, copper, lead, manganese, nickel, and zinc (Perry Laboratories, Inc. 1980). On October 24, 1980, IEPA issued Water Pollution and Control permit number 1980-SC-1395 to the city of Wood Dale. The permit stipulated that 2.5 million gallons (594 dry tons) of sludge be disposed of by applying the sludge to various farmlands, including the 273-acre property (IEPA 1980). Property owners in the area were contacted prior to the landfarming. The quantity of sludge disposed of at the 273-acre property is not known. IEPA permit number 1980-SC-1042 was issued to Clearwater Farms, Inc., of Elgin, Illinois, to transport and dispose of the sludge on a 24-hour, 7-day-per-week schedule (E & E 1981).

On November 20, 1980, a citizen reported to IEPA that tanker trucks were dumping liquid on the 273-acre property during all hours of the day. The complainant was concerned that pollutants would migrate from the property to Salt Creek (IEPA 1980).

At the request of U.S. EPA, FIT conducted a site inspection of the 273-acre property on March 2, 1981. Three soil samples were collected from the property (E & E 1981). Sampling analysis results were rendered unusable because sample holding times were exceeded by the laboratory responsible for the chemical analysis of the soil samples (U.S. EPA 1983).

Sometime after March 1981, IIP developed the majority of the 273-acre property into commercial and industrial properties. Approximately 45 buildings were constructed on the property. However, the WT site itself has not yet been developed. The WT site is downslope of the area of landfarming on the 273-acre property.

FIT discovered four monitoring wells on-site during its November 13, 1990, SSI. According to site representative John Stoetzel,

President, IIP, information regarding who installed the monitoring wells and when is not available (Stoetzel 1990a).

No remedial activities have occurred on-site. The site is currently being used as a recreation area by residents and workers in the area of the site.

# 3. SCREENING SITE INSPECTION PROCEDURES AND FIELD OBSERVATIONS

## 3.1 INTRODUCTION

This section outlines procedures and observations of the SSI of the WT site. Individual subsections address the site representative interview, reconnaissance inspection, and sampling procedures. Rationales for specific FIT activities are also provided. The SSI was conducted in accordance with the U.S. EPA-approved work plan with the following exceptions. At the time of the SSI, FIT discovered that the majority of the 273-acre property had been developed into industrial and commercial properties. Therefore, FIT determined that seven soil/sediment samples would adequately characterize wastes on-site instead of the nine samples originally specified in the work plan. The work plan also specified that two residential well samples and one municipal well sample be collected. However, U.S. EPA recommended that residential and municipal well samples not be collected during the WT site SSI because the SSI was conducted just after the expiration of the 1988 U.S. EPA Contract Laboratory Program (CLP) contract for groundwater sample analysis and before the enactment of the 1990 U.S. EPA CLP contract.

The U.S. EPA Potential Hazardous Waste Site Inspection Report (Form 2070-13) for the WT site is provided in Appendix B.

## 3.2 SITE REPRESENTATIVE INTERVIEW

Tim Rodriguez, FIT team leader, and Nathan Russell, FIT team member, conducted an interview with John L. Stoetzel, President, IIP. The interview was conducted on November 12, 1990, at 9:40 a.m. at 6133 N.

River Road, Rosemont, Illinois. The interview was conducted to gather information that would aid FIT in conducting SSI activities. The interview concluded at 10:15 a.m.

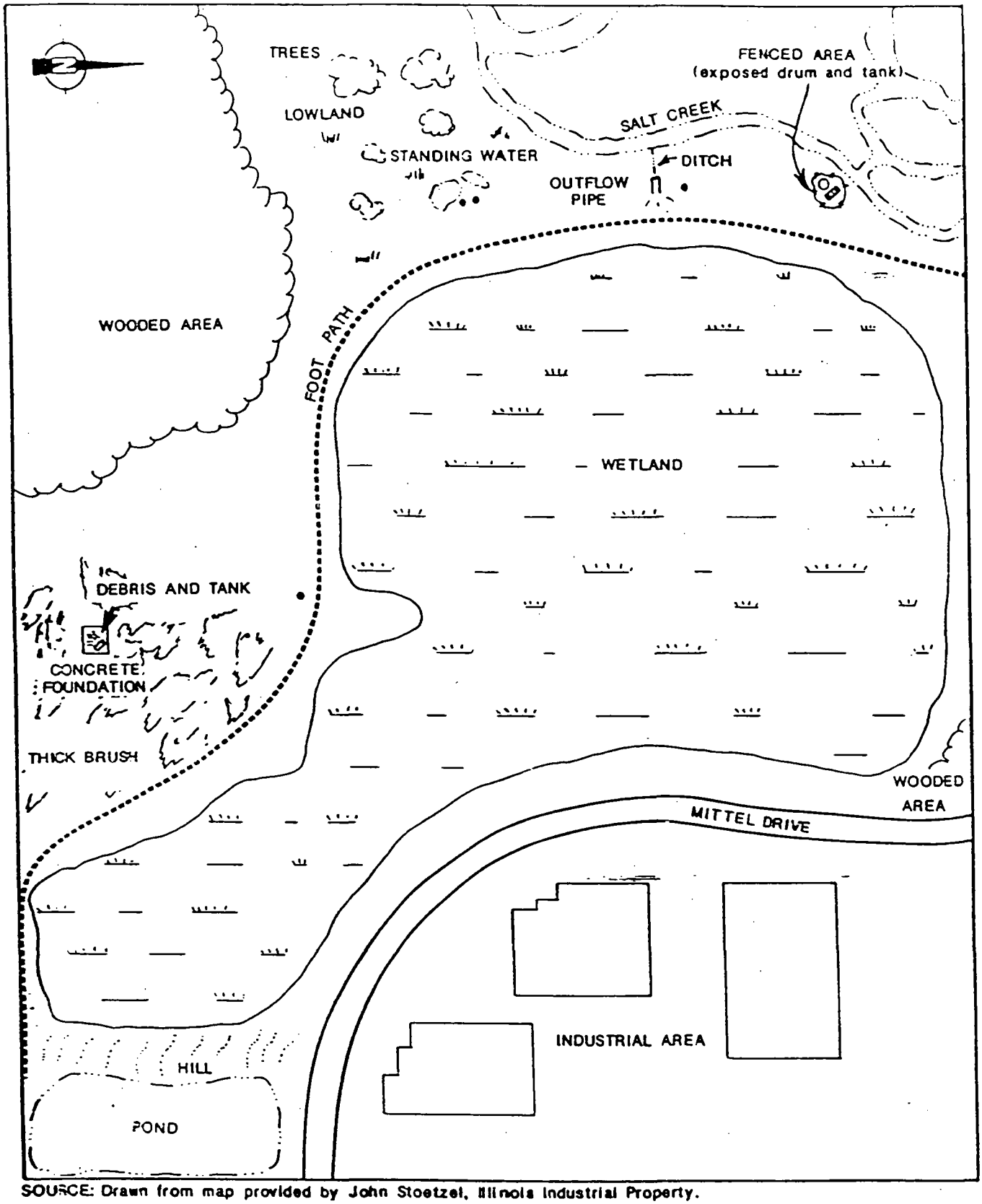
## 3.3 RECONNAISSANCE INSPECTION

Following the site representative interview, FIT conducted a reconnaissance inspection of the WT site and surrounding area in accordance with Ecology and Environment, Inc. (E & E), health and safety guidelines. The reconnaissance inspection began on November 13, 1990, at 10:15 a.m. and included a walk-through of the site to determine appropriate health and safety requirements for conducting on-site activities and to make observations to aid in characterizing the site. FIT also determined sampling locations during the reconnaissance inspection. FIT was not accompanied by the site representative during the reconnaissance inspection.

Reconnaissance Inspection Observations. The WT site is located on Mittel Drive, approximately 1/2 mile southwest of the intersection of Wood Dale Road and Thorndale Avenue, in the city of Wood Dale. Land east, north, and northeast of the site is primarily industrial. Salt Creek is west of the site. The land southeast of the site is heavily vegetated with low brush. Tall trees and thick brush vegetate the land southwest of the site (see Figure 3-1 for site features). The land east of the site slopes gently toward the site.

The central and northern portions of the site are dominated by West Pond, a wetland area covering approximately 14 acres of the approximately 30-acre site. Although West Pond had a thick growth of wetland vegetation, the pond was dry during the SSI. A second, smaller pond was observed in the southeast corner of the site. The smaller pond, which is approximately 2 acres in size, is separated from West Pond by a hill.

A footpath was observed south and west of West Pond. A concrete building foundation was observed in an area of thick brush in the southern portion of the site. Metal debris, rubber tires, and an approximately 60-gallon oil tank were observed on the abandoned concrete foundation. The southwest corner of the site is a lowland area dominated by tall trees. Two areas of standing water were observed in the




SOURCE: Drawn from map provided by John Stoetzel, Illinois Industrial Property.

SCALE

0 100 200 300 400 500 FEET

LEGEND

• MONITORING WELL LOCATIONS

FIGURE 3-1 SITE FEATURES

southwest corner of the site. Salt Creek flows through the northwest corner of the site. An outflow pipe and ditch were observed on the west side of the site. The pipe extends west out of West Pond and discharges into the ditch. Water was observed flowing from the ditch into Salt Creek during the SSI.

A fenced area containing drums and an oil tank was observed in the northwest corner of the site. The fenced area, approximately 50 feet in diameter, was partially covered with soil and small plants. FIT was unable to enter the fenced area and could not, therefore, determine the number or condition of drums inside the fenced area. A small area of thick brush and trees was located in the site's northeast corner.

Four monitoring wells were observed on-site. The first monitoring well was located approximately 30 feet south of the footpath and 300 feet north of the abandoned concrete foundation. Two monitoring wells were located near an area of standing water in the southwest corner of the site, approximately 75 feet west of the footpath. The fourth well was located approximately 30 feet northwest of the outflow pipe in the northwest corner of the site.

Bicycle and motorcycle tracks were observed throughout the site. FIT observed several individuals walking through the site. Great blue herons and kingfishers were observed on-site at the time of the SSI.

FIT photographs from the SSI of the WT site are not available because the film was destroyed during processing.

## 3.4 SAMPLING PROCEDURES

Samples were collected by FIT at locations selected during the reconnaissance inspection to determine whether U.S. EPA Target Compound List (TCL) compounds or Target Analyte List (TAL) analytes were present at the site. The TCL and TAL are included with corresponding quantitation/detection limits in Appendix C.

On November 13, 1990, FIT collected seven surface soil/sediment samples. The site representative did not accept offered portions of the FIT-collected on-site soil/sediment samples.

Soil/Sediment Sampling Procedures. Surface soil sample S1 was collected at the base of the hill in the southeast corner of the site at a depth of approximately 6 inches. Sample S1 was collected to determine

whether TAL analytes or TCL compounds had migrated from the landfarmed areas of the 273-acre property to on-site surface soils (see Figure 3-2 for on-site soil/sediment sampling locations).

Surface soil sample S2 was collected downslope of an exposed drum in the fenced area. Sample S2 was collected at a depth of approximately 6 inches to determine whether the contents of the drums had leaked TAL analytes or TCL compounds onto surrounding soils.

A shovel was used to collect surface soil sample S4 at a depth of 6 inches. Sample S4 was collected from the low area in the southwest corner of the site. Sample S4 was collected to determine whether TCL compounds or TAL analytes had migrated from the landfarmed areas of the 273-acre property to the lowland wooded area adjacent to Salt Creek.

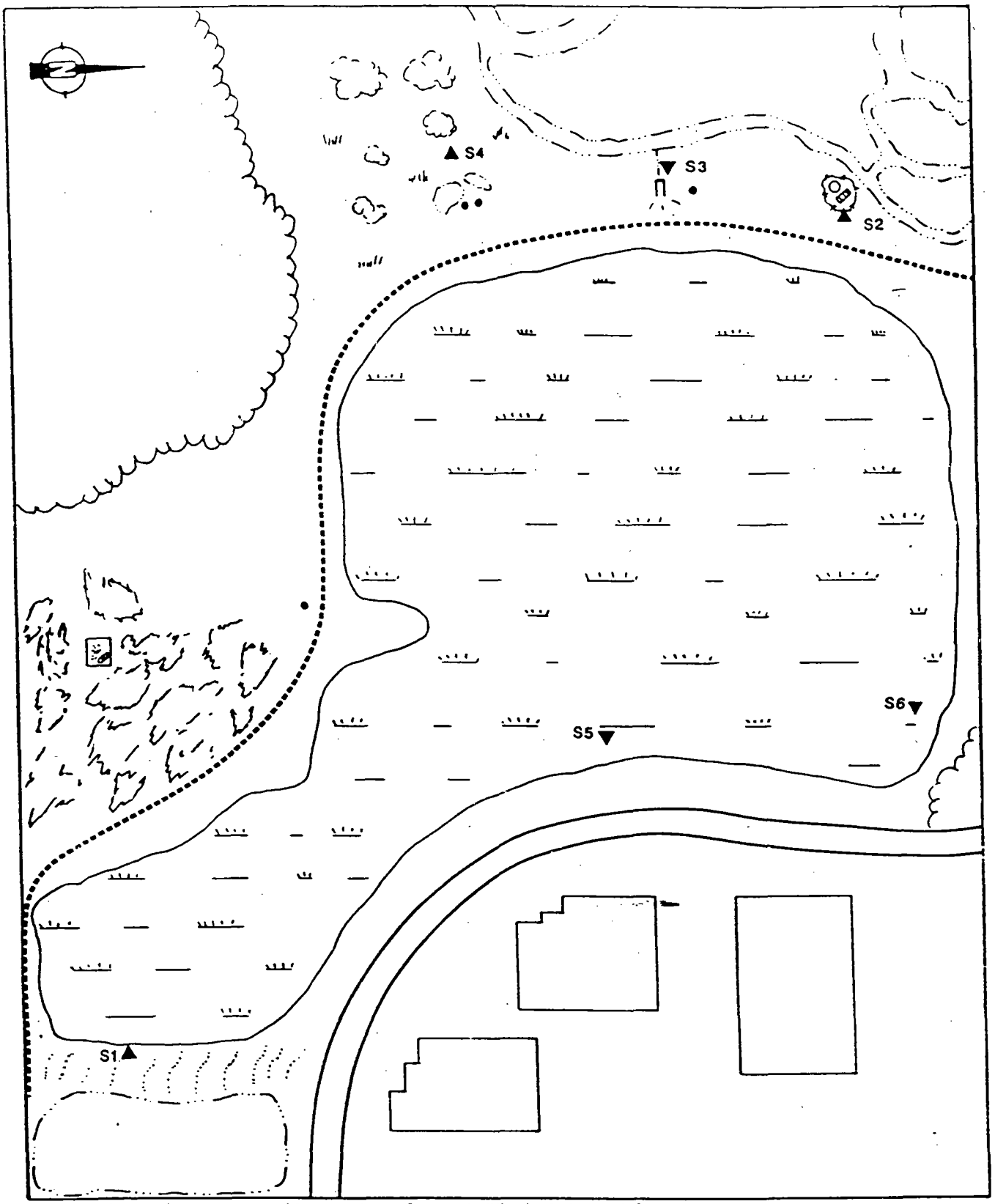
Surface soil sample S7, the potential background sample, was collected off-site from a sampling location in a wooded area approximately 1/2 mile east of the site. Sample S7 was collected at a depth of 6 inches to determine the representative chemical content of soils in the area of the site (see Figure 3-3 for the off-site sampling location).

Sediment sample S3 was collected at a depth of 6 inches from the ditch connecting the outflow pipe to Salt Creek. Sample S3 was collected to determine whether TCL compounds or TAL analytes were migrating from the site to Salt Creek via the ditch.

Sediment samples S5 and S6 were collected from sampling locations on the east and northeast sides of West Pond, respectively, at depths of 12 inches. Samples S5 and S6 were collected to determine whether TAL analytes or TCL compounds had migrated from the landfarmed areas to wetlands on-site.

All surface soil/sediment samples were grab samples. With the exception of sample S4, all soil/sediment samples were collected using a garden trowel. All samples were placed in a stainless steel bowl. Soil was then transferred to sample bottles using a stainless steel spoon. Volatile organic analysis portions were collected first by transferring soil directly from the ground to sample bottles (E & E 1987).

Standard E & E decontamination procedures were adhered to during the collection of all soil/sediment samples. The procedures included the scrubbing of all equipment (e.g., trowel, shovel, and spoons) with a




SOURCE: Drawn from map provided by John Stoetzel, Illinois Industrial Property.

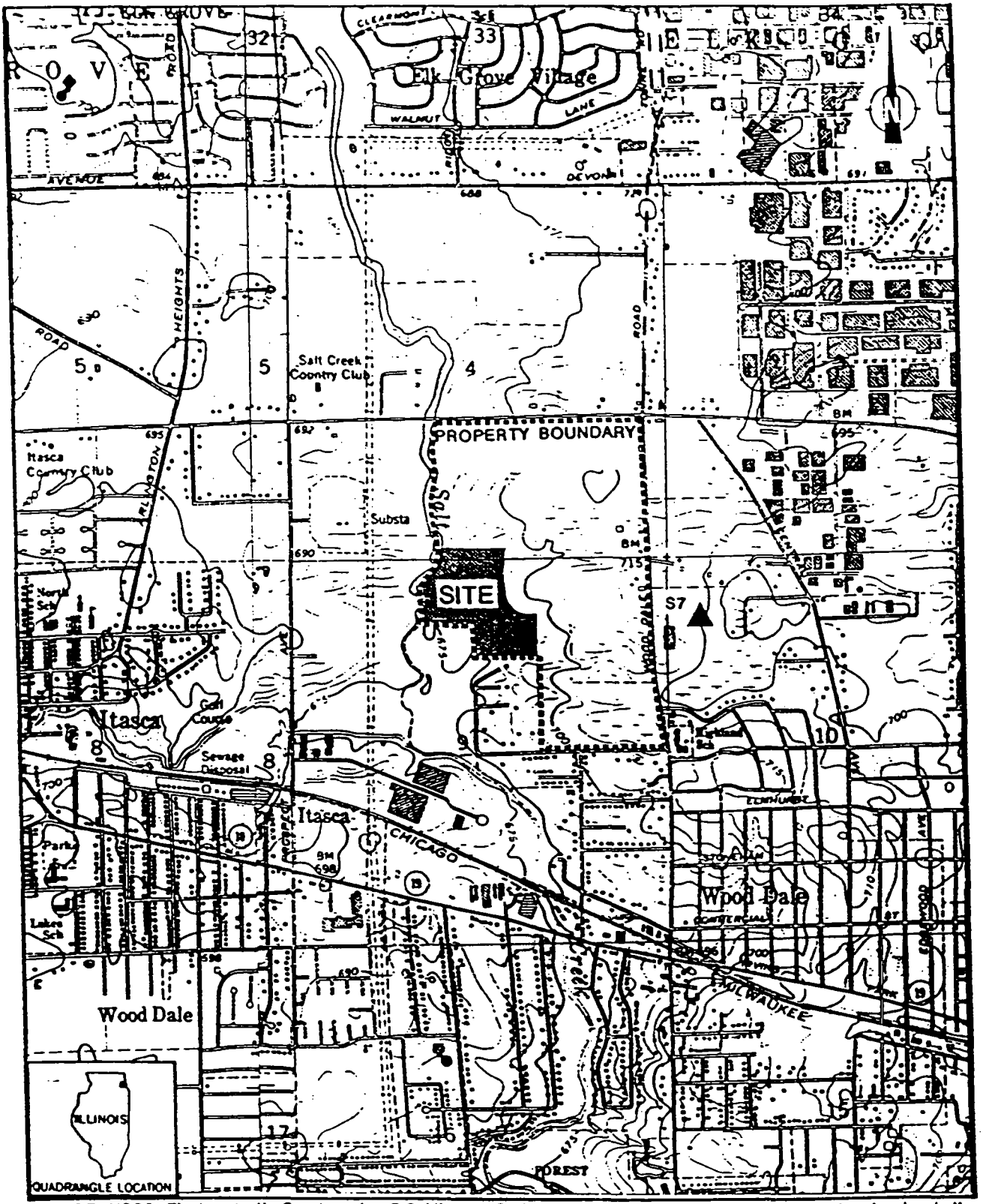
SCALE

0 100 200 300 400 500 FEET

LEGEND

▲ SOIL ▼ SEDIMENT

FIGURE 3-2 ON-SITE SOIL/SEDIMENT SAMPLING LOCATIONS




SOURCE: USGS, Elmhurst, IL Quadrangle, 7.5 Minute Series, 1963, photorevised 1972 and 1980; Lombard, IL Quadrangle, 7.5 Minute Series, 1962, photorevised 1972 and 1980.

SCALE

0 ½ 1 MILE

FIGURE 3-3 OFF-SITE SOIL SAMPLING LOCATION

solution of detergent (Alconox) and distilled water, and triple-rinsing the equipment with distilled water before the collection of each sample (E & E 1987). All soil/sediment samples were packaged and shipped in accordance with U.S. EPA-required procedures.

As directed by U.S. EPA, all soil/sediment samples were analyzed using the U.S. EPA CLP.

# 4. ANALYTICAL RESULTS

This section presents results of the chemical analysis of FIT-collected soil/sediment samples for TCL compounds and TAL analytes. All samples were analyzed for volatile organics, semivolatile organics, pesticides/polychlorinated biphenyls (PCBs), metals, and cyanides. Complete chemical analysis results of FIT-collected soil/sediment samples are provided in Table 4-1.

Quantitation/detection limits used in the analysis of soil/sediment samples are provided in Appendix C.

The analytical data for the chemical analysis of soil/sediment samples collected for this SSI have been reviewed by U.S. EPA for compliance with terms of CLP, and the review has been approved by U.S. EPA. The analytical data have also been reviewed by FIT for validity and usability. Any additions, deletions, or changes to the data have been incorporated in the chemical analysis results tables presented in this section.